U.S. Department of Transportation
Federal Highway Administration

American Association of State Highway and Transportation Officials

Attachment 5

SAMPLE
SCAN PROPOSAL FORM
Joint AASHTO/FHWA International Technology Scanning Program (FY2004-2005)

Proposing AASHTO Committee(s), FHWA Office(s) and/or FHWA Resource Center(s):

AASHTO Subcommittee on Systems Operation and Management

Contact person(s) for scan, including contact information (please include address, phone and e-mail):
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Title of proposed scan:

Partnerships in Highway and Traffic Incident Management

Scan purpose and objectives:
The purpose of this scan is to examine programs and practices employed by other countries that provide coordinated management of highway and traffic incidents. Coordinated response in this sense means all public and private sector agencies responsible for detecting, responding to, managing, clearing, and assessing highway incidents. Included partners would be transportation agencies, policing agencies, fire services, towing companies and hazardous materials responders. The driving force behind this scan is that approximately 50% of all congestion in urban areas is caused by incidents, that the proportion is substantially higher on rural highways, and that effective detection and management of these incidents can have a significant benefit on highway safety and mobility in the US.

Transportation security and emergency traffic operations have received increased emphasis since September 2001. Successful traffic incident management programs and capabilities can be foundational to enhanced regional and statewide transportation emergency preparedness, and transportation security. In the United States, there has been limited institutional alignment of regional and state transportation and public safety agencies to increase support for transportation security. The scan tour will also investigate how transportation security has been effectively enhanced through expanded partnerships between the transportation and public safety communities.

The scope of this scan will be limited to highway and traffic incidents requiring a coordinated public safety response. Emphasis topic areas can be categorized into three categories and associated issues.

1. Programmatic & Institutional Aspects – What institutional mechanisms and arrangements can improve traffic incident response and management?
2. Operational and On-Scene Aspects – What specific techniques and methods can be applied to the quick and safe active response to and clearance of highway and traffic incidents?
3. Technological and Interoperability Aspects – What communications system approaches and technologies can ensure real-time exchange of voice, data and video information between diverse agencies that respond to traffic incidents and that manage the highway system? How are traffic management systems and other technological tools integrated into improved highway incident response?

Programmatic

- The role of different public safety agencies in detecting incidents
- Best practices for sharing incident data between affected agencies

- Authorities of various agency responders
- Techniques for measuring, assessing and improving agency performance
- Integrating traffic incident management and transportation security into business and strategic planning
- Innovative inter-organizational structures for traffic incident management and transportation operations
- Approaches to planning for emergency traffic operations

Operational
- Division of responsibilities in scene management and traffic control
- Incident command structures and systems
- Training and response planning approaches and techniques
- New techniques for safe and expeditious removal of incident debris and damaged vehicles
- Traveler warning and information systems and tools to support traffic incident management
- Roadway design features to accommodate highway incident response, clearance, and impact mitigation

Technology & Interoperability
- Interoperability of wireless communications systems
- Voice, video, and data communications technologies
- Impacts of internet-based communications capabilities on interoperability
- Private sector roles in product and standards development
- Interoperability planning and system architectures

This scanning tour will identify examples and approaches for each of the issues above. The tour will also investigate how other national and sub-national public sector entities have approached strategic development of traffic incident management and transportation security capabilities and programs. The results of this investigation will be offered as possible alternatives or variations of current national and federal approaches in the United States.

A distinguishing feature of this scanning tour will be the integration of "peer-pairing" of state DOT's. This feature will establish key personal contacts between multiple levels within a pair of state DOT's. For example, the Secretaries of two state DOT's, the two State Police Commanders, two top administrators, and two senior managers will be networked in advance of the tour. Shared issues, comparative practices, and successes and failures in traffic incident management will be identified and discussed by the key contacts. Some or all of these paired key contacts will participate in the tour, and will reconvene as a group after the tour to review lessons learned. Not only will this mechanism ensure a more thorough and planned deliberation of scan tour insights, it will also foster sustained inter-state relationships to enable continued progress towards improved traffic incident management. Possible "Peer Pairs" include the following as illustrative examples:
- Texas and Nebraska
- Maryland and North Carolina
- Washington and Wisconsin
- California and Minnesota
- Florida and Michigan
- Others

The proposed scan tour will be proactively integrated into follow-up technology transfer activities. A tour communications plan will be developed in advance to guide the information-gathering work of the tour group. This plan will schedule and detail how insights from the tour will be incorporated into national events, forums, and documents of FHWA, AASHTO, TRB, ITS America, and ITE. As a result, the tour will produce more than just a summary report. The tour will produce a coordinated infusion of expanded knowledge into the practice and planning of traffic incident management.

Benefits expected, including potential impacts on current technology or procedures:
- Clearer understanding of the roles of various transportation and public safety agencies in highway incident detection and management
- Best practices employed by partnering agencies in strengthening relationships
- Better understanding of institutional and inter-organizational structures that support planning, evaluation, implementation and administration of ongoing traffic incident management programs.
- Successful models for planning and pursuing enhanced transportation security
- Highway design considerations to more safely and quickly clear traffic incidents
- Modern and emerging technologies and institutional arrangements to implement and operate interoperable transportation and public safety communications systems for voice, data, and video.
- An energized core of group of transportation and public safety officials who can promote international best practices on incident management partnering
- Planned, formalized, and sustained peer relationships between paired state DOT's that are successful in promoting traffic incident management programs and practices
- A national framework for collaborative strategic planning between transportation and public safety organizations to incrementally enhances national preparedness for transportation emergencies, and to improve traffic operations.
- An expanded international knowledge base to update and enhance several FHWA resources and programs, including

- Traffic Incident Management Handbook administration and training
- Transportation Management Center (TMC) Pooled-Fund Study
- Traffic Incident Management Pooled-Fund Research and Training Program (pending)
- FHWA-AASHTO National Traffic Incident Management Conferences
- Transportation Research Board (TRB) Traffic Incident Management Annual Workshop
- Traffic Incident Management and Transportation Security elements of the National ITS Architecture

How the proposed scan fits into AASHTO and/or FHWA strategic goals:

Recently reorganized into Operations and Project Delivery Conferences, SCOH now reflects a concerted emphasis on highway operations and has formed a Subcommittee on Systems Operations and Management (SSOM). The Subcommittee on Systems Operations and Management has organized into four Task forces, one of which focuses on Incident Response and Traffic Incident Management. The SSOM TIM Task Force will aggressively support synthesis of national support for the sustained funding and implementation of a National TIM Coalition. The Coalition will actively support peer networking to share best practices between various transportation and public safety agencies.

The AASHTO TIM Task Force will also adopt and pursue other recommendations of the March, 2002 – AASHTO/FHWA Traffic Incident Conference. The Task Force will formalize national-level liaison relationships with public safety organizations through the ITS America Public Safety Forum. Finally, the Task Force will recommend modifications and updates to the AASHTO Strategic Plan, Strategic Highway Safety Plan, and other leadership documents to more completely integrate and address the national needs of traffic incident management programs and activities. Throughout these endeavors, the SSOM TIM Task Force will emphasize the vital role of ongoing regional traffic incident management programs. These regional programs have proven essential to the development and nurturing of strong working relationships between transportation and public safety professionals. It is these strong working relationships that ultimately support safer and faster highway incident response, continuously improving traffic incident management, and enhanced transportation security.

The proposed scan will also accelerate the prospective initiation of the Future Strategic Highway Research Program (F-SHRP) and related emerging national transportation research programs. F-SHRP has been planned to encompass four focus areas, including the topic area of Travel Time Reliability. The focal component of the F-SHRP "Reliability" Research Program Plan is traffic incident management. This scan will anticipate some of the initial international synthesis that will be more extensively undertaken through F-SHRP.

The ITS America Public Safety Forum and Public Safety Advisory Group are building strong relationships between national transportation and public safety organizations. These groups are beginning to establish a national strategic sketch plan for shared technologies to support transportation operations and public safety functions. In addition, AASHTO has participated in the National Institute of Justice's National Task Force on Interoperability (NTFI). NTFI is implementing a national action plan to expand the awareness of transportation and public safety communications system interoperability. ITSA and NTFI represent AASHTO's and FHWA's important strategic partnerships to more broadly engage the public safety community as peer partners in enhancing traffic incident management and transportation security.

Date: March 10, 2002

Signature of respective AASHTO Committee Chairman, FHWA Associate Administrator or FHWA Director of Field Services:

John Conrad, Chairman
AASHTO Subcommittee on Systems
Operations and Management

Dennis Judycki, Associate Administrator
Research, Development & Technology
Federal Highway Administration

Please forward both the electronic version (via e-mail) and signed hard copy (via mail or fax) of your proposal to:

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********** SCAN PROPOSALS ARE DUE ON APRIL 1, 2003 **********